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		3. Electrical characteristics of interconnections for high-performance systems Deutsch, A.; Proceedings of the IEEE Volume 86, Issue 2, Feb. 1998 Page(s):315 - 357 Digital Object Identifier 10.1109/5.659489					
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5. Physical design guides for substrate noise reduction in CMOS digital cir cuits Nagata, M.; Nagai, J.; Hijikata, K.; Morie, T.; Iwata, A.; Solid-State Circuits, IEEE Journal of Volume 36, Issue 3, March 2001 Page(s):539 - 549

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W Cui, J Fan, H Shi, JL Drewniak - Electromagnetic Compatibility, 2001. EMC. 2001 IEEE ..., 2001 - ieeexplore.ieee.org

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